

**UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF NEW HAMPSHIRE**

Parker Tirrell, by her parents and next friends Sara Tirrell
and Zachary Tirrell, *and*

Iris Turmelle, by her parents and next friends Amy
Manzelli and Chad Turmelle,

Plaintiffs.

v.

Frank Edelblut, *in his official capacity as Commissioner of
the New Hampshire Department of Education;*

Andrew Cline, Kate Cassady, Ann Lane, Philip Nazzaro,
Rajesh Nair, James Fricchione, and James Laboe, *in their
official capacities as members of the New Hampshire State
Board of Education;*

Pemi-Baker Regional School District;

Lisa Ash, Bernice Sullivan, Sheila Donahue, Tony Torino,
Carolyn Varin, Peter Jackson, Phil McCormack, Greg
Aprilliano, Bonnie Acton, Barbara Noyes, Paul Ciotti,
Sam Brickley, and Paul Pizzano, *in their official
capacities as members of the Pemi-Baker Regional School
Board;*

Pembroke School District; and

Andrew Camidge, Gene Gauss, Kerri Dean, and Melanie
Camelo, *in their official capacities as members of the
Pembroke School Board,*

Defendants.

Civil Action No. 1:24-cv-00251

**DECLARATION OF DANIEL SHUMER, M.D. IN SUPPORT OF PLAINTIFFS'
MOTIONS FOR PRELIMINARY INJUNCTION AND PLAINTIFF PARKER
TIRRELL'S MOTION FOR TEMPORARY RESTRAINING ORDER**

I, Daniel Shumer, M.D., states as follows:

Expert Qualifications

1. I am a Pediatric Endocrinologist and Medical Director of the Comprehensive Gender Services Program at Michigan Medicine, University of Michigan, charged with the coordination of transgender medicine within the health system. I also serve as the Clinical Director of Child and Adolescent Gender Services at C.S. Mott Children's Hospital, and as an Associate Professor of Medicine at the University of Michigan. A true and accurate copy of my Curriculum Vitae is attached as **Exhibit A**.

2. I received my medical degree from Northwestern University in 2008. After completing a residency in Pediatrics, I began a clinical fellowship in pediatric endocrinology at Harvard University's Boston Children's Hospital. During that clinical fellowship, I completed a Master of Public Health from Harvard University's T.H. Chan School of Public Health. I finished both the fellowship and my degree in 2015.

3. As a fellow at Harvard, I worked at the Gender Management Services Clinic (GeMS), the first major program in the U.S. to focus on gender-diverse and transgender adolescents. GeMS is located at Boston Children's Hospital. Working at GeMS, I became a clinical expert in the field of transgender medicine within pediatric endocrinology and began conducting research on gender identity and the evaluation and management of transgender children and adolescents.

4. Based on my work at GeMS, I was recruited to establish a similar program focusing on gender-diverse and transgender children and adolescents at the C.S. Mott Children's Hospital. In October 2015, I founded the hospital's Child and Adolescent Gender Services Clinic.

5. The Child and Adolescent Gender Services Clinic has treated over 800 patients since its founding. I oversee the clinical practice, which includes four other physicians, two clinical

social workers, nursing, and administrative staff. I also actively conduct research related to transgender medicine and mental health concerns specific to transgender youth.

6. I have personally evaluated and treated over 400 patients, ages 4 to 25 years, for gender dysphoria.

7. Since 2017, I have been a member of the Special Interest Group on Gender Identity of the Pediatric Endocrine Society. I also actively conduct research related to transgender medicine, and I have published numerous peer-reviewed journal articles and book chapters in the field of transgender medicine.

8. I am involved in the education of medical trainees. I was previously the Fellowship Director in the Division of Pediatric Endocrinology and the Education Lead for the Division of Pediatric Endocrinology, and am currently Course Director for a medical student elective in Gender-Affirming Care. My additional academic duties as an Associate Professor include teaching several lectures, including those entitled “Puberty,” “Transgender Medicine,” and “Pediatric Growth and Development.”

9. As a pediatric endocrinologist specializing in transgender health, I have expertise with respect to the effects of male puberty on transgender girls, as well as the impact and effects of testosterone suppression resulting from hormonal treatments.

10. In preparing this declaration, I reviewed the text of HB 1205 at issue in this matter. I also relied on my scientific education and training, my experience diagnosing and treating individuals with gender dysphoria, my research experience, and my knowledge of the scientific literature in the pertinent fields.

11. I have not met or spoken with the Plaintiffs or their parents for purposes of this declaration. My opinions are based solely on the information that I have been provided by the

Plaintiffs' attorneys as well as my extensive background and experience treating transgender patients.

12. In the past five years, I have been retained as an expert and provided testimony on behalf of transgender plaintiffs in the following case: *Roe et al. v. Herrington et al.*, 4:20-cv-00484 (D. Ariz.); *Dekker v. Weida*, No. 4:22-cv-00325-RH-MAF (N.D. Fla.); *Boe v. Marshall*, No. 2:22-cv-00184-LCB-CWB (M.D. Ala.); *Roe v. Utah High Sch. Activities Ass'n*, No. 220903262 (3d Jud. Dist. in and for Salt Lake County, Utah); *Doe et al. v. Ladapo et al.*, 4:23-cv-00114-RH-MAF (N.D. Fla.); *K.C. et al v. Medical Licensing Board of Indiana*, 1:23-CV-595 (S.D. Ind.); *Koe et al. v. Noggle et al.*, 1:23-cv-02904-SEG (N.D. Geo.); *Noe et al. v. Parson et al.*, (Cole County, MO); *Loe et al. v. Texas et al.*, (Travis County, TX).

13. I am being compensated at an hourly rate for the actual time that I devote to this case, at the rate of \$400 per hour for any review of records, preparation of reports, or declarations. I will be compensated with a day rate of \$2,500 for deposition and trial testimony. My compensation does not depend on the outcome of this litigation, the opinions that I express, or the testimony that I provide.

Medical and Scientific Background on Gender Identity and Gender Dysphoria

14. Gender identity is the medical term for a person's internal, innate sense of belonging to a particular sex. Everyone has a gender identity.

15. Gender identity is a well-understood and accepted concept in medicine and science. Research shows a biological basis for its development. Differences in prenatal hormonal exposures, genetic factors, and brain structural differences may all contribute to determining a person's gender identity. It is believed that physiological interaction of the developing brain and sex hormones plays an important role in gender identity development.

16. Gender identity does not refer to socially constructed behavior, attitudes, or personality traits. It is an internal and largely biological phenomenon.

17. A person's gender identity is innate and cannot be changed by medical or psychological intervention.

18. Living consistent with one's gender identity is critical to the health and well-being of any person, including transgender people.

19. When a child is born, a healthcare provider designates the child's sex as male or female based on the child's observable anatomy. For most people, that initial designation (often referred to as "birth sex") matches the person's gender identity. For a transgender person, however, that initial designation turns out to be inaccurate because it is not consistent with the person's gender identity.

20. A transgender girl is a girl whose birth sex is male.

21. Due to the incongruence between their birth sex and gender identity, transgender people experience varying degrees of gender dysphoria, a serious medical condition recognized in the American Psychiatric Association's *Diagnostic and Statistical Manual of Mental Disorders* ("DSM-5") and the World Health Organization's *International Classification of Diseases* ("ICD-10") where it is referred to as "gender incongruence." Gender dysphoria is highly treatable and can be effectively managed. If left untreated, however, it can result in severe anxiety and depression, eating disorders, substance abuse, and suicidality.

22. When transgender youth and adolescents are provided with appropriate medical treatment and have parental and social support, they can thrive and grow into healthy adults.

23. The goal of medical treatment for transgender patients is to alleviate their distress by allowing them to live consistently with their gender identity. Research and clinical experience have consistently shown the medical treatments for gender dysphoria to be safe and effective.

24. These standards have been endorsed by the major professional associations of medical and mental health providers in the United States, including the American Medical Association, the American Academy of Pediatrics, the American Psychiatric Association, the American Psychological Association, and the Endocrine Society. In addition, the Endocrine Society—a 100-year-old, global membership organization representing professionals in the field of adult and pediatric endocrinology—published clinical practice guidelines on treatment recommendations for the medical management of gender dysphoria, in collaboration with the Pediatric Endocrine Society, the European Societies for Endocrinology and Pediatric Endocrinology, and the World Professional Association for Transgender Health (“WPATH”), among others.

25. The prevailing standards of care for the treatment of gender dysphoria are developed by WPATH, an international multidisciplinary professional association to promote evidence-based care, education, research, advocacy, public policy, and respect for transgender health, and by the Endocrine Society. Undergoing treatment to alleviate gender dysphoria is commonly referred to as gender transition. According to the WPATH standards of care, the gender transition process typically includes one or more of the following three components: (i) social transition, including adopting a new name, pronouns, appearance, and clothing; (ii) medical transition, including puberty-blocking and/or hormone therapy; and (iii) surgeries to alter the appearance and functioning of primary and secondary sex characteristics.

26. Young individuals who experience gender dysphoria may be prescribed puberty-blocking medication (gonadotropin-releasing hormone [GnRH] agonists) shortly after the onset of puberty to prevent the development of physical characteristics that conflict with the young person's gender identity. In these cases, a transgender individual never goes through puberty consistent with their birth sex. For example, a transgender girl will experience no progression of physical changes caused by testosterone, including male muscular development, facial and body hair, an Adam's apple, or masculinized facial structures.

27. Thereafter, the treating provider may prescribe cross-sex hormones to induce the puberty associated with the adolescent's gender identity. This treatment is referred to as hormone therapy. The result of this treatment is that a transgender girl typically has the same levels of circulating estrogen and testosterone levels as other girls and significantly lower testosterone than boys who have begun pubertal development.

Sports and Gender

28. Being transgender is not an accurate proxy for athletic performance or ability. Sex chromosomes and genitals alone do not meaningfully affect athletic performance.

29. Before puberty, there are no significant differences in athletic performance between boys and girls. After puberty, boys perform better on average than girls in most athletic competitions.

30. The biological driver of these group differences is testosterone, not anatomy or genetics. Both boys and girls produce testosterone. After puberty, however, boys produce much higher levels of testosterone than girls, which results in increased muscle mass and muscle strength. As a result, post-pubertal boys and men have an athletic advantage over girls and

women in many sports. *See, e.g.,* David J. Handelsman, et al., *Circulating Testosterone as the Hormonal Basis of Sex Differences in Athletic Performance*, 39 *Endocrine Revs.* 803-29 (2018).

31. Setting aside the narrow category of individuals with disorders of sexual development, the ranges of testosterone in typical males and typical females do not overlap with each other.

32. There are transgender girls and women who have testosterone in the female range because they are receiving hormone therapy or because, as a result of receiving puberty-blocking medication, they have never gone through male puberty.

33. The fact that a girl is transgender, in itself, does not indicate that she has any athletic advantage over other girls.

The Plaintiffs' Medical Transition and HB 1205

34. There is no medical justification for New Hampshire to exclude Parker Tirrell and Iris Turmelle from girls' interscholastic athletics because they are transgender.

35. It is my understanding that Parker Tirrell is a 15-year-old transgender girl who was diagnosed with gender dysphoria by age 12 and has lived her life as a girl since that time.


36. Because Parker is on puberty-blocking medication and has started hormone therapy, she will not go through male puberty and has no biological or physiological differences from other girls that would impact her performance in school sports, including soccer.

37. It is my understanding that Iris Turmelle is a 14-year-old transgender girl who was diagnosed with gender dysphoria by age 8 and has lived her life as a girl since that time.

38. Because Iris is on puberty-blocking medication and has started hormone therapy, she will not go through male puberty and has no biological or physiological differences from other girls that would impact her performance in school sports, including track and field or tennis.

I DECLARE UNDER PENALTY OF PERJURY THAT THE FOREGOING IS TRUE
AND CORRECT.

Executed on August 13, 2024.



Daniel Shumer, M.D.